

# Data sheet | Item number: 733-102/037-000

1-conductor female plug; 100% protected against mismatching; Locking lever;  
0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 2-pole



733-102/037-000



RoHS Compliant

[BOMcheck.net](https://www.bomcheck.net)

Color:

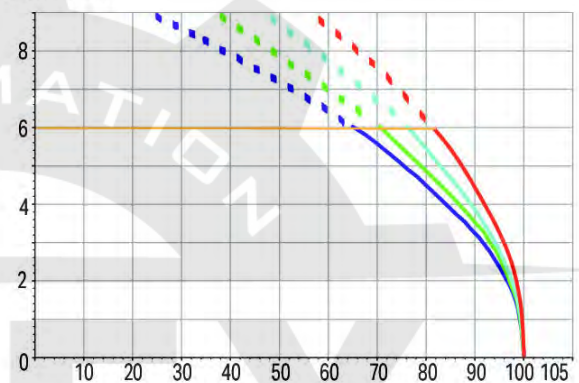
## Derating Curve

1-conductor female connector (733-102) with  
THT male header (733-332)

Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm<sup>2</sup> "f-st"

Based on: EN 60512-5-2 / Reduction factor: 0.8

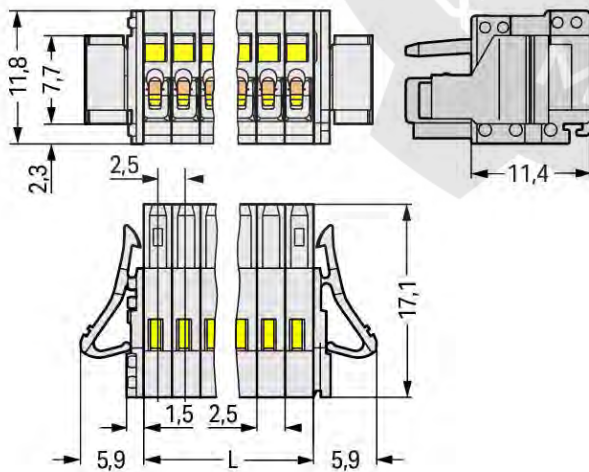
Current in A



Ambient operating temperature in °C

2-, 4-, 6-, 12-pole

Conductor rated current



L = pole no. x pin spacing

## Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates for factory and in-the-field assembly
- 100% protected against mismatching
- Coding via coding fingers

## Safety information 1:

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

## Data

### Electrical data

#### Ratings per IEC/EN 60664-1

|                                 |        |
|---------------------------------|--------|
| Rated voltage (III / 3)         | 100 V  |
| Rated impulse voltage (III / 3) | 2.5 kV |
| Rated voltage (III / 2)         | 160 V  |
| Rated impulse voltage (III / 2) | 2.5 kV |
| Rated voltage (II / 2)          | 320 V  |
| Rated impulse voltage (II / 2)  | 2.5 kV |
| Rated current                   | 6 A    |

#### Approvals per UL 1059

|                                |       |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 150 V |
| Rated current UL (Use Group B) | 4 A   |

#### Approvals per CSA

|                                 |       |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 150 V |
| Rated current CSA (Use Group B) | 4 A   |

## Connection data

|                                                             |                                              |
|-------------------------------------------------------------|----------------------------------------------|
| Connection technology                                       | CAGE CLAMP®                                  |
| Actuation type                                              | Operating tool                               |
| Solid conductor                                             | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |
| Fine-stranded conductor                                     | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |
| Fine-stranded conductor with ferrule with plastic collar    | 0.25 ... 0.34 mm <sup>2</sup>                |
| Fine-stranded conductor with ferrule without plastic collar | 0.25 ... 0.34 mm <sup>2</sup>                |



|                                               |                                |
|-----------------------------------------------|--------------------------------|
| Strip length                                  | 5 ... 6 mm / 0.2 ... 0.24 inch |
| No. of poles                                  | 2                              |
| Total number of connection points             | 2                              |
| Total number of potentials                    | 2                              |
| Number of connection types                    | 1                              |
| Number of levels                              | 1                              |
| Conductor entry direction to mating direction | 0°                             |

### Geometrical Data

|             |                      |
|-------------|----------------------|
| Pin spacing | 2.5 mm / 0.098 inch  |
| Width       | 16.8 mm / 0.661 inch |
| Height      | 11.8 mm / 0.465 inch |
| Depth       | 17.1 mm / 0.673 inch |

### Plug connection

|                                    |                         |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector connection type          | for conductors          |
| Mismatching protection             | Yes                     |
| Locking of plug-in connection      | locking lever           |

### Material Data

|                             |                                   |
|-----------------------------|-----------------------------------|
| Color                       | light gray                        |
| Material group              | I                                 |
| Insulating material         | Polyamide 66 (PA 66)              |
| Flammability class per UL94 | V0                                |
| Clamping spring material    | Chrome nickel spring steel (CrNi) |
| Contact material            | Copper alloy                      |
| Contact plating             | tin-plated                        |
| Fire load                   | 0.032 MJ                          |
| Weight                      | 1.45 g                            |

### Environmental Requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
|-------------------------|-----------------|

### Commercial data

|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Country of origin  | DE                     |
| GTIN               | 4045454215491          |
| Customs Tariff No. | 85366990990            |

## Approvals / Certificates

### UL-Approvals

| Logo                                                                             | Approval                             | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|--------------------------------------|--------------------------|------------------|
|  | UL<br>Underwriters Laboratories Inc. | UL 1059                  | 20190122-E45172  |

### Compatible products

#### check

|                                                                                  |                                                                             |         |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------|
|  | Item no.: 735-500<br>Test pin; 1 mm Ø; with solder connection for test wire | 735-500 |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------|

#### tools

|                                                                                    |                                                                                                                   |         |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------|
|   | Item no.: 210-251<br>Operating tool; for female and male connectors with CAGE CLAMP® connection; MCS MINI & MICRO | 210-251 |
|  | Item no.: 210-719<br>Operating tool with partially insulated shaft; Type 1, blade (2.5 x 0.4) mm                  | 210-719 |
|  | Item no.: 233-331<br>Operating tool; for female and male connectors with CAGE CLAMP® connection; insulated        | 233-331 |
|  | Item no.: 233-332<br>Operating tool; for 233 and 733 Series; of insulating material                               | 233-332 |
|  | Item no.: 233-335<br>Operating tool; for 233 and 733 Series                                                       | 233-335 |
|  | Item no.: 733-130<br>Operating tool; for male and female connectors with CAGE CLAMP®; loose                       | 733-130 |
|  | Item no.: 733-191<br>Operating tool; for male and female connectors with CAGE CLAMP®; loose                       | 733-191 |

#### Marking accessories

|                                                                                                                                                                                       |                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Item no.: 210-331/250-202<br>Marking strips; as a DIN A4 sheet; MARKED; 1-16 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive  | 210-331<br>/ 250-202 |
| Item no.: 210-331/250-204<br>Marking strips; as a DIN A4 sheet; MARKED; 17-32 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive | 210-331<br>/ 250-204 |
| Item no.: 210-331/250-206<br>Marking strips; as a DIN A4 sheet; MARKED; 33-48 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive | 210-331<br>/ 250-206 |

|                                                                                                                                                         |                                                                                                                |                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------|
| <b>Item no.: 210-331/250-207</b>                                                                                                                        |                                                                                                                | 210-331           |
| Marking strips; as a DIN A4 sheet; MARKED; 1-48 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive |                                                                                                                | 210-331 / 250-207 |
| <b>ferrule</b>                                                                                                                                          |                                                                                                                |                   |
|                                                                         | <b>Item no.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated | 216-131           |
|                                                                         | <b>Item no.: 216-132</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated | 216-132           |
|                                                                         | <b>Item no.: 216-151</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated | 216-151           |
|                                                                         | <b>Item no.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated | 216-152           |
|                                                                                                                                                         | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated   | 216-301           |
|                                                                         | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated   | 216-302           |
|                                                                                                                                                         | <b>Item no.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated   | 216-321           |
|                                                                        | <b>Item no.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated   | 216-322           |
| <b>Strain relief plate</b>                                                                                                                              |                                                                                                                |                   |
|                                                                       | <b>Item no.: 734-127</b><br>Strain relief plate                                                                | 734-127           |

## Downloads

## CAD/CAE - Smart Data

## CAD data

|                             |     |          |
|-----------------------------|-----|----------|
| 3D Download 733-102/037-000 | URL | Download |
|-----------------------------|-----|----------|

Subject to changes.